

Date Thursday, 09/08/2007 8:17:58 AM
User Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : FLOAT ASSEMBLY
Job Number : 33853
Estimate Number : 11383
P.C. Number : N/A Part Number : D3218041
This Issue : 09/08/2007 S.O. No. : N/A Drawing Number : D3218 REV B
Prsht Rev. : NC Project Number : N/A
First Issue : N/A Type : PURCHASED PARTS Drawing Revision : B
Previous Run : N/A Material : N/A
Written By : JLM/07-08-09 Due Date : 24/08/2007 Qty: 8 Um: Each
Checked & Approved By :
Comment : Est. A 03.11.14 New issue KJ/DS

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0

PG

PURCHASING



Comment: PURCHASING

Order bags in multiples of 3

Issue P/O: 4328

Supplier: Tulmar Safety Systems D3218-041 Float Assembly per Dwg D3218

Serial No.: BXXXXX-01, BXXXXX-02, etc.

Copy of inspection paperwork is required with each Float Assembly

C207/08/09 (8)

2.0

D3218041P

Float Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)
Float Assembly

3.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive and inspect for transit damage

Ensure inspection paperwork is provided with each Float Assembly

7/8/1759

4.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

Review vendor paperwork for completeness

Ensure all pressure tests passed

Ensure all dimensions within tolerance

Ensure Dart inspection performed

Ensure s/n printed on bag matches paperwork/Dart W/O

10/09/12

Visually inspect bag for defects

No de-lamination or puckering of seams

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: 12 Date: 07/09/12
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 09/08/2007 8:17:58 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT ASSEMBLY

Job Number: 33853

Part Number: D3218041

Job Number:



Seq. #:

Machine Or Operation:

Description :

Girt attachment OK
No holes through stitching
No excess glue
Valves installed in proper locations

JD 07.09.12

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Re-package and Stock in Kwik Float cell

JD 07/09/12 (8)

6.0

QC21

FINAL INSPECTION W/O RELEASE



Comment: FINAL INSPECTION W/O RELEASE

JD 07/09/12 (8)

Job Completion



U 07.09.12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN DS	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3218	REV. C SHEET 1 OF 2
DATE 04.12.01		TITLE FLOAT ASSEMBLY	SCALE NTS
A	03.10.06	NEW ISSUE	
B	04.10.26	ADD BONDING/TESTING/MFG SPEC	
C	04.12.01	UPDATE NOTE #1, #2, & #4	

RELEASED
04.12.16

D3218-041 FLOAT ASSEMBLY, NOTES:

1) MATERIAL:

ITEM	DESCRIPTION	QTY
FABRIC	POLYURETHANE COATED, PENNEL 987-123 YELLOW	7.20 m
ADHESIVE	SEALREZ S-0345 A/B	2.50 L
WEBBING	LAGRAN #3003, 1" WHITE NYLON	0.31 m
THREAD	NYLON, TWISTED TYPE II, SIZE F, CLASS A, V-T-295, COLOR TAN	5.00 yds
NYLON CORD	MIL-C-5040 TYPE III, COLOR NATURAL	1.60 m
LETTERING	COATES SCREEN C99 S170 BLACK, HIGH GLOSS	0.50 oz
INFLATION VALVE	MIRADA B-51016 / A-51265	2
PRESSURE RELIEF VALVE	MIRADA B-51019	2
TOPPING VALVE	MIRADA B-51209	2
FLANGE	MIRADA B-51014-N (4.25")	4
FLANGE	HALKEY ROBERTS 981001020 (3.5")	2

2) ADHESIVE BONDING TO BE PERFORMED I.A.W. TULMAR PCS 002 REV. D USING AN ADHESIVE THICKNESS OF 0.008" +/- 0.003" (3 COATS). COUPON TESTING TO BE PERFORMED I.A.W. TULMAR PCS 006 REV. C. MANUFACTURING PROCESS IS DEFINED BY TULMAR PIF #193-8927 REV. E

3) AFTER MANUFACTURE:

- (a) PRESSURE TEST EACH CHAMBER TO 4.36 PSI (30 kPa) FOR 5 MINS.
- (b) INFLATE TO RELIEF VALVE PRESSURE [MIN OF 3.00 PSI (20.6 kPa)]. RELIEF VALVE MUST OPEN AT 3.3-3.5 PSI AND MUST CLOSE AT NOT LESS THAN 3.00 PSI. BAG MUST MAINTAIN A MIN PRESSURE OF 1.6 PSI (11.0 kPa) FOR 24 HOURS.

4) FLOAT IDENTIFICATION LETTERING 0.313" (7.95mm) HIGH BLACK CAPITAL LETTERS STENCILED ON THE R/H SIDE OF THE FLOAT BAG AS FOLLOWS:

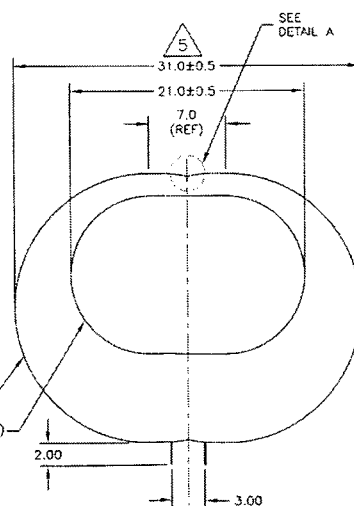
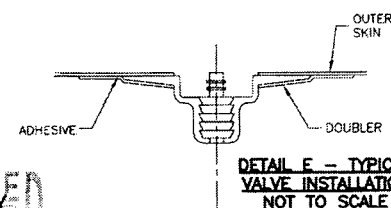
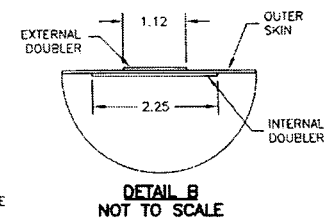
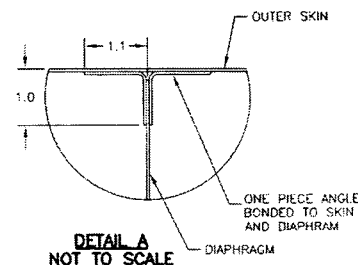
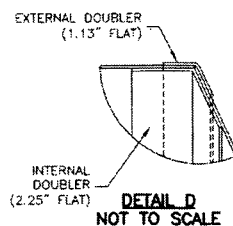
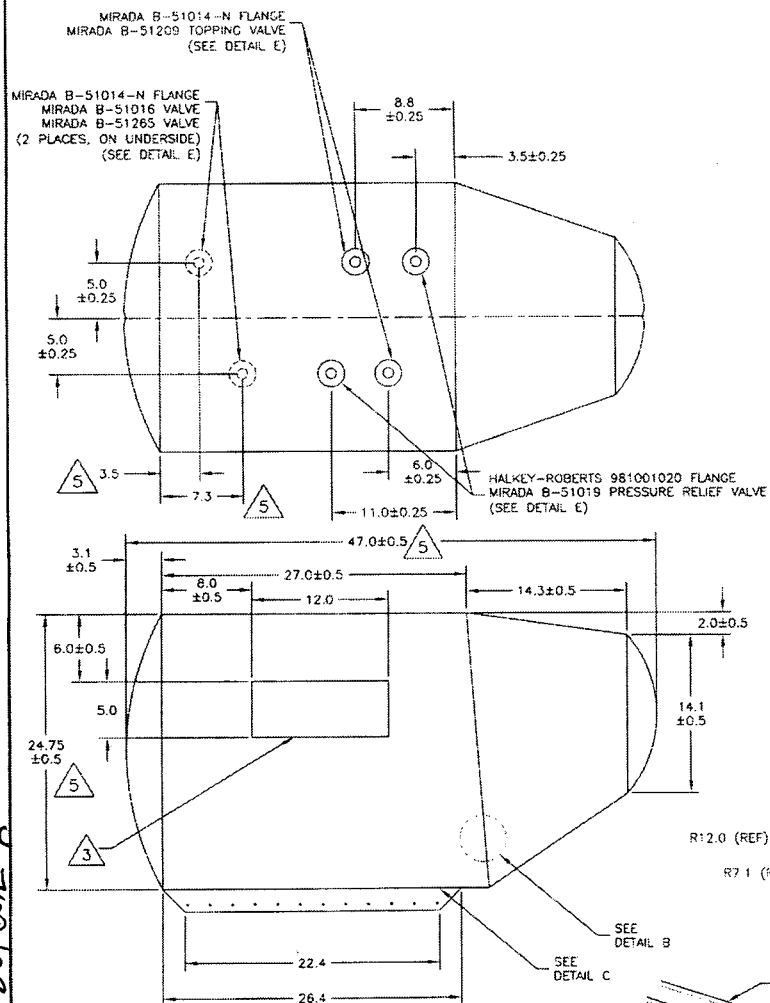
DART AEROSPACE LTD.
FLOAT ASSEMBLY
P/N D3218-041 S/N BXXXXX-XX
REPLACES HELITECH P/N 358-008-001
WWW.DARTAERO.COM

- 5) COATED SIDE OF FABRIC ON OUTSIDE OF BAG.
- 6) ALL DIMENSIONS ARE IN INCHES. CRITICAL DIMENSIONS (DENOTED BY) MUST BE OBTAINED AT 2 PSI.
- 7) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

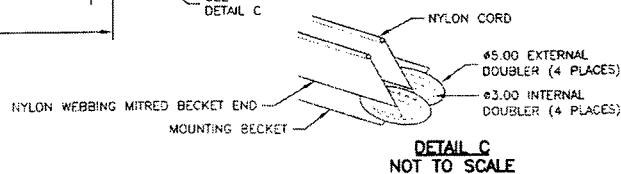
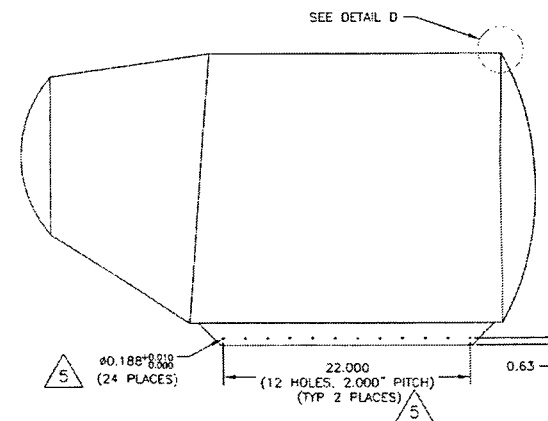
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C207108109
W/O 33853



RELEASED
04.12.16



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THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

DESIGN	DS	DRAWN BY	<i>P</i>	DART	DART AEROSPACE LTD. WINDSOR, ONTARIO, CANADA
CHECKED	<i>#</i>	APPROVED	<i>#</i>	DRAWING NO. D3218	REV. C
DATE	04.12.01	TITLE	FLOAT ASSEMBLY	SCALE	1:10

SHEET 2 OF 2

0407108107
w/o 33853

PACKING SLIP

TULMAR

Packing Slip No.

26809

Ship Date

17-Aug-07

Tulmar Safety Systems Inc.

1123 Cameron Street
Hawkesbury, ON K6A 2B8 CA

Tel: 613-632-1282

Fax: 613-632-2030

MID : CATULSAF1123HAW

email: info@tulmar.com

Bill No:

Dart Aerospace

1270 Aberdeen Street

Hawkesbury, ON K6A 1K7. Canada

Ship To:

Dart Aerospace

1270 Aberdeen Street

Hawkesbury, ON K6A 1K7. Canada

613-632-3336

Order No.

20153

Order Date

10-Aug-07

Customer No.

CDART100

Sales Rep.

Barney Bangs

Customer PO Number

PO00004328

Ship Via

Pick-Up

PPD/COL

Release Note No.

R92- 26809

Item No.

Description

Qty

UOM

Qty Shipped/Returned

Qty Backordered

8927

8

EA

8

Float Assembly, individual bag/P/N: D3218-041

Drawing No: D3218

Rev: C

Comments:

Serial No: B21829 00000013 ✓

Serial No: B21829 00000016 ✓

Serial No: B21829 00000019 ✓

Serial No: B21829 00000014

Serial No: B21829 00000017

Serial No: B21829 00000020

Serial No: B21829 00000015

Serial No: B21829 00000018

4/8/17
SP

Handwritten signature

RELEASE NOTE

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8 CA
Tel: 613-632-1282
Fax: 613-632-2030
www.tulmar.com
email: info@tulmar.com

Release Note No.
R92-26809
Ship Date
17-Aug-07

Bill No:

Dart Aerospace
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7. Canada

Ship To:

Dart Aerospace
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7. Canada
613-632-3336

Order No.	Order Date	Customer No.	Sales Rep.
20153	10-Aug-07	CDART100	Barney Bangs
Customer PO Number	Ship Via	Packing Slip No.	
PO00004328	Pick-Up	26809	
Item No.	Qty	UOM	Qty Shipped/Returned
Description			Qty Backordered

1927
Float Assembly, individual bag/P/N: D3218-041
Drawing No: D3218
Rev: C

Comments:


Serial No: B21829 00000013
Serial No: B21829 00000016
Serial No: B21829 00000019

Serial No: B21829 00000014
Serial No: B21829 00000017
Serial No: B21829 00000020

Serial No: B21829 00000015
Serial No: B21829 00000018

If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 245.

This release note is a Certificate of Conformance and I hereby certify that the items listed hereon have been inspected tested and conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this release note is on file and can be made available upon request.



Authorized Inspector

08/17/2007

Date

RELEASE NOTE

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8 CA
Tel: 613-632-1282
Fax: 613-632-2030
www.tulmar.com
email: info@tulmar.com

COPY

Release Note No.
R92-26809
Ship Date

17-Aug-07

Bill No:

Dart Aerospace
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7. Canada

Ship To:

Dart Aerospace
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7. Canada
613-632-3336

Order No.	Order Date	Customer No.	Sales Rep.
20153	10-Aug-07	CDART100	Barney Bangs
Customer PO Number	Ship Via	Packing Slip No.	
PO00004328	Pick-Up	26809	
Item No.	Qty	UOM	Qty Shipped/Returned
Description			Qty Backordered


8927
Float Assembly, individual bag/P/N: D3218-041
Drawing No: D3218
Rev: C

Comments:

Serial No: B21829 00000013	Serial No: B21829 00000014	Serial No: B21829 00000015
Serial No: B21829 00000016	Serial No: B21829 00000017	Serial No: B21829 00000018
Serial No: B21829 00000019	Serial No: B21829 00000020	

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Authorized Inspector

08/17/2007

Date

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8 CA
Tel: 613-632-1282
Fax: 613-632-2030
MID : CATULSAF1123HAW
email: info@tulmar.com

COPY

Packing Slip No.

26809

Ship Date

17-Aug-07

Bill No:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7. Canada

Ship To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7. Canada
613-632-3336

Order No.	Order Date	Customer No.	Sales Rep.	Customer PO Number	Ship Via	PPD/COL	Release Note No.
20153	10-Aug-07	CDART100	Barney Bangs	PO00004328	Pick-Up		R92-26809
Item No.	Description	Qty	UOM	Qty Shipped/Returned	Qty Backordered		

8927

8

EA

8

Float Assembly, individual bag/P/N: D3218-041

Drawing No: D3218

Rev: C

Comments:

Serial No: B21829 00000013

Serial No: B21829 00000016

Serial No: B21829 00000019

Serial No: B21829 00000014

Serial No: B21829 00000017

Serial No: B21829 00000020

Serial No: B21829 00000015

Serial No: B21829 00000018

7/8/17
SK

W. Selmer

Description: Float Bag Assembly S/N: B21829-13

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

S/O: 20153 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A- Date: C Sm,

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) $\pm 1/8"$ b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up c) Attach (6) Doublers on above Flanges		Bonding						
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) $\pm 1/8"$								
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape								
4- a) Baffle Ass'y. with 2" Tape $\pm 1/8"$		Bonding						
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)								
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time		Testing (see sheet 2)						
7- a) Closure of 1" Main Seam (overlap) $\pm 1/8"$ b) Attach ID Patch (ref. CAR 04-003)		Bonding						
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time								
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered $\pm 1/8"$ b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag c) Attach 5" split patch on each end (x 4)		Bonding						

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B <u>21829-13</u> & Inspection Stamp beside the S/N	12	Testing (see sheet 3)	1	-	-	1	188 A	aug 15/07

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase
+ 0.049 PSI for each 0.1 inch of barometric increase

+ 0.054 PSI for each 1°C of temperature decrease
- 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail		
# 1 (see note 1)	4.36 PSI		3.00 PSI	10:45	11:30	3.00 PSI	11:30	12:30	3.00 PSI	25	25	29.77	29.77	-	3.00 PSI	Pass
Re-Test																
# 2 (Main Seam)	4.36 PSI		3.00 PSI	8:25	9:10	3.00 PSI	9:15	10:15	3.00 PSI	23	23	29.75	29.75	-	3.00 PSI	Pass
Re-Test																

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: n/a Date: n/a

Observations: _____

TULMAR

#1 4114

S/o 20153
S/N: B21829-13

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 3/3

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33196	10:50	3.18 PSI	10:55	3.06 PSI	Pass
Chamber # 2 (Main Seam)	33714	11:55	3.50 PSI	12:00	3.14 PSI	Pass

Humidity 33%

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
Aug 13/07 # 1	3.06 PSI	10:55	10:55	2.66 PSI	24	23	29.74	29.86	+0.051 0.058	2.79 PSI	Pass
Re-Test											
Aug 14/07 # 2 (Main Seam)	3.14 PSI	12:00	12:00	2.45 PSI	23	23	29.86	29.63	-0.112	2.38 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *			47.0	± 0.5			24.75	± 0.5		
7.3	± 0.100 *							31.0	± 0.5		

* = IAW QSI 018, rev. A dated 03-05-29

N/A

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour								
	7 day								
Shear	24 hour								
	7 day								

N/A

Description: Float Bag Assembly

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

W/O: 4114 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: _____

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) ± 1/8"	Chantal 156 9 Feb 05	Batch 7104 28 Bonding	1	—	—	1	(156)	Feb. 9/05
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up	Helene 117 8 Feb 05		6	—	—	6	(117)	Feb 9/05
c) Attach (6) Doublers on above Flanges	117 8 Feb 05		6	—	—	6	(117)	Feb 9/05
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"	Chantal 156 9 Feb 05	7104-28	1	—	—	1	(156)	Feb. 9/05
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape	Chantal 156 9 Feb 05	7104-28	1	—	—	1	(156)	Feb. 9/05
4- a) Baffle Ass'y. with 2" Tape ± 1/8"	Johanne 110 9/02/05	7104 Bonding	1	—	—	1	(110)	Feb 9/05
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)	#110 10/02/05	28	1	—	—	1	(110)	Feb 10/05
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time	12 22/mar/05	Testing (see sheet 2)	1	—	—	1	(12)	Mar 22/05
7- a) Closure of 1" Main Seam (overlap) ± 1/8"	21 H02/05	Bonding	1	—	—	1	(21)	April 28/05
b) Attach ID Patch (ref. CAR 04-003)	#110 3 Mar/05		1	—	—	1	(110)	May 5/05
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time	12 26/april/05	Testing (see sheet 2)	1	—	—	1	(12)	April 26/05
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8"	110 2/05/05	Bonding	1	—	—	1	(110)	May 4/05
b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag	110 02/05/05		1	—	—	1	(110)	May 4/05
c) Attach 5" split patch on each end (x 4)	110 02/05/05		1	—	—	1	(110)	May 4/05

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B _____ & Inspection Stamp beside the S/N		Testing (see sheet 3)						

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi , re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase + 0.054 PSI for each 1°C of temperature decrease
+ 0.049 PSI for each 0.1 inch of barometric increase - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail		
# 1 (see note 1)	4.36 PSI	Pass	3.00 PSI	7:55	8:40	3.00 PSI	8:40	9:40	3.00 PSI	22°	22°	29.94	29.94	-	3.00 PSI	Pass
Re-Test																
# 2 (Main Seam)	4.36 PSI	Pass	3.00 PSI	9:20	10:00	3.00 PSI	10:00	11:00	3.05 PSI	22°	23°	29.62	29.62	-0.054	2.99 PSI	Pass
Re-Test																

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: _____

Date: 05.04.18

Observations: OK

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33196	9:40	3.44 PSI	9:45	3.19 PSI	Pass
Chamber # 2 (Main Seam)	33714	10:40	3.34 PSI	10:45	3.06 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test								hurry 18 %	
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
# 1	3.19 PSI	9:45	9:45	2.63 PSI	24°	21°	30.07	30.34	0.162	2.92 PSI	Pass
Re-Test									+0.132		
# 2 (Main Seam)	3.06 PSI	10:45	10:45	2.48 PSI	22°	23°	30.34	30.15	-0.054	2.34 PSI	Pass
Re-Test									-0.093		

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *	3.4	Pass	47.0	± 0.5	46 5/8	Pass	24.75	± 0.5	25"	Pass
7.3	± 0.100 *	7.3	Pass					31.0	± 0.5	31 1/4"	Pass

* = IAW QSI 018, rev. A dated 03-05-29

Submission of Adhesive Testing:

		Subm. Date / (am/pm)	Pass/Fail	Subm. Date / (am/pm)	Pass/Fail	Subm. Date / (am/pm)	Pass/Fail	Subm. Date / (am/pm)	Pass/Fail
Peel	24 hour	Feb 8/05	Pass	Feb 9/05	Pass	April 29/05	Pass	May 3/05	Pass
	7 day	Feb 8/05	Pass	Feb 9/05	Pass	April 29/05	Pass	May 3/05	Pass
Shear	24 hour	Feb 8/05	Pass	Feb 9/05	Pass	April 29/05	Pass	May 3/05	Pass
	7 day	Feb 8/05	Pass	Feb 9/05	Pass	April 29/05	Pass	May 3/05	Pass

Description: Float Bag Assembly S/N: B21829-14

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

S/O: 20153 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date:
S/F order: 4/1/4 C SM

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3


Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) $\pm 1/8$ " b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up c) Attach (6) Doublers on above Flanges		Bonding						
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) $\pm 1/8$ "								
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape								
4- a) Baffle Ass'y. with 2" Tape $\pm 1/8$ "		Bonding						
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)								
6- a) Perform Baffle Test on Chamber # 1 after a 3-day Cure Time		Testing (see sheet 2)						
7- a) Closure of 1" Main Seam (overlap) $\pm 1/8$ " b) Attach ID Patch (ref. CAR-04-003)		Bonding						
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time								
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered $\pm 1/8$ " b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag c) Attach 5" split patch on each end (x 4)		Bonding						

TULMAR

#2 4/14

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 2/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: <u>B 2 1 8 2 9 - 1 4</u> & Inspection Stamp beside the S/N	12	Testing (see sheet 3)	1	-	-	1		Aug 15 2007

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) **b)** Temperature shall be 20°C ± 5°C **c)** Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi , re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase
- + 0.054 PSI for each 1°C of temperature decrease
- + 0.049 PSI for each 0.1 inch of barometric increase
- 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail		
# 1 (see note 1)	4.36 PSI		3.00 PSI	10:45	11:30	3.00 PSI	11:30	12:30	3.00 PSI	25	25	29.77	29.77	-	3.00 PSI	Pass
Re-Test																
# 2 (Main Seam)	4.36 PSI		3.00 PSI	8:25	9:10	3.00 PSI	9:15	10:15	3.00 PSI	23	23	29.75	29.75	-	3.00 PSI	Pass
Re-Test																

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: N/a Date: N/a

Observations: _____

TULMAR

#2

S/N: B21829-14

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 3/3

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

hurry 33%

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33199	10:55	3.45 PSI	11:00	3.24 PSI	Pass
Chamber # 2 (Main Seam)	33722	12:00	3.30 PSI	12:05	3.00 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
Aug 13/07 # 1	3.24 PSI	11:00	11:00	2.72 PSI	24	23	29.74	29.86	$\frac{+0.054}{-0.0588}$	2.83 PSI	Pass
Re-Test											
Aug 14/07 # 2 (Main Seam)	3.00 PSI	12:05	12:05	2.29 PSI	23	23	29.86	29.63	$\frac{-0.112}{-0.112}$	2.18 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *			47.0	± 0.5			24.75	± 0.5		
7.3	± 0.100 *							31.0	± 0.5		

* = IAW QSI 018, rev. A dated 03-05-2007 *n/c*

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour								
	7 day								
Shear	24 hour								
	7 day								

#2

Description: Float Bag Assembly

Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

W/O: 4114 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: Feb 10/05

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) ± 1/8"	156 9 Feb 05	Batch 7104-28	1	—	—	1	156 11	Feb 9/05
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up	117 8 Feb 05	Batch 7104-28	6	—	—	6	117 11	Feb 9/05
c) Attach (6) Doublers on above Flanges		Bonding	6	—	—	6	117 11	Feb 9/05
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"	156 10 Feb 05	Batch 7104-28	1	—	—	1	156 11	Feb 10/05
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape	156 10 Feb 05	7104-28	1	—	—	1	156 11	Feb 10/05
4- a) Baffle Ass'y. with 2" Tape ± 1/8"	110 10 Feb 05	7104 Bonding	1	—	—	1	110 11	Feb 10/05
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)	110 11 Feb 05	28	1	—	—	1	110 11	Feb 14/05
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time	12 21 Mar 05	Testing (see sheet 2)	1	—	—	1	12 4	Mar 21/05
7- a) Closure of 1" Main Seam (overlap) ± 1/8"	110 21 Mar 05	Bonding	1	—	—	1	110 9	May 2/05
b) Attach ID Patch (ref. CAR 04-003)	110 5/5/05	29	1	—	—	1	110 9	May 9/05
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time	12 3 May 2005	Testing (see sheet 2)	1	—	—	1	12 4	May 3/05
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8"	4 May 05 #110	7104-29	1	—	—	1	110 9	May 9/05
b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag	4 May 05 #110	Bonding	1	—	—	1	110 9	May 9/05
c) Attach 5" split patch on each end (x 4)	4 May 05 #110		1	—	—	1	110 9	May 9/05

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B _____ - _____ & Inspection Stamp beside the S/N		Testing (see sheet 3)						

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase
 + 0.049 PSI for each 0.1 inch of barometric increase
 + 0.054 PSI for each 1°C of temperature decrease
 - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test									
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail	
# 1 (see note 1)	4.36 PSI	Pass	3.00 PSI	2:45	3:30	3.00 PSI	3:30	4:30	3.00 PSI	24° 24°	29.79 29.79	— —	3.00 PSI	Pass	
Re-Test															
# 2 (Main Seam)	4.36 PSI	Pass	3.00 PSI	9:35	10:20	3.00 PSI	10:20	11:20	3.00 PSI	23° 23°	29.77 29.78	— +0.004	3.00 PSI	Pass	
Re-Test															

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: Chris Proven

Date: 05.04.18

Observations: OK. MINOR BUBBLES OVER LOCATION → GLOBE LOCATION

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

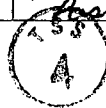
Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test		Opening		Closing		Pass / Fail
Chamber #	PRV Serial Numbers	Time ON	Pressure	Time	Close	
Chamber # 1	33199	3:15	3.39 PSI	3:20	3.08 PSI	Pass
Chamber # 2 (Main Seam)	33722	4:00	3.25 PSI	4:05	3.01 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test								
		Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail	
# 1	3.08 PSI	3:20	3:20	2.75 PSI	25° 25°	29.83 29.64	- 0.093	2.65 PSI	Pass	
Re-Test										
# 2 (Main Seam)	3.01 PSI	4:05	4:05	2.30 PSI	25° 25°	29.64 29.65	+ 0.004	2.31 PSI	Pass	
Re-Test										

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *	3.5	Pass	47.0	± 0.5	46.3/4	Pass	24.75	± 0.5	25.1/4	Pass
7.3	± 0.100 *	7.3	Pass					31.0	± 0.5	31.3/8	Pass

* = IAW QSI 018, rev. A dated 03-05-29



Submission of Adhesive Testing:

		Subm. Date / am/pm	Pass/Fail	Subm. Date / am/pm	Pass/Fail	Subm. Date / am/pm	Pass/Fail	Subm. Date / am/pm	Pass/Fail
Peel	24 hour	Feb 8/05	Pass	Feb 10/05	Pass	May 3/05	Pass	May 4/05	Pass
	7 day	Feb 8/05	Pass	Feb 10/05	Pass	May 3/05	Pass	May 4/05	Pass
Shear	24 hour	Feb 8/05	Pass	Feb 10/05	Pass	May 3/05	Pass	May 4/05	Pass
	7 day	Feb 8/05	Pass	Feb 10/05	Pass	May 3/05	Pass	May 4/05	Pass

Description: Float Bag Assembly S/N: B21829-15


-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

W/O: 20153 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date:
 S/F Order: 4114 C 3n.

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint)± 1/8" b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up c) Attach (6) Doublers on above Flanges		Bonding						
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"								
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape								
4- a) Baffle Ass'y. with 2" Tape ± 1/8"		Bonding						
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)								
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time		Testing (see sheet 2)						
7- a) Closure of 1" Main Seam (overlap) ± 1/8" b) Attach ID Patch (ref. CAR 04-003)		Bonding						
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time								
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8" b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag c) Attach 5" split patch on each end (x 4)		Bonding						

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B <u>21829-15</u> & Inspection Stamp beside the S/N	12	Testing (see sheet 3)	1	—	—	1		Aug 16/07
Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).								

Test Conditions – All tests shall be performed in the following conditions:





a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over-Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase + 0.054 PSI for each 1°C of temperature decrease
+ 0.049 PSI for each 0.1 inch of barometric increase - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test								
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail
# 1 (see note 1)	4.36 PSI		3.00 PSI	10:45	11:30	3.00 PSI	11:30	12:30	3.00 PSI	25 25	29.77 29.77		3.00 PSI	Pass
Re-Test			3.00 PSI											
# 2 (Main Seam)	4.36 PSI		3.00 PSI	8:25	9:10	3.00 PSI	9:15	10:15	3.00 PSI	23 23	29.75 29.75		3.00 PSI	Pass
Re-Test														

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: N/A Date: N/A

Observations: _____

4114

S/o 20153

TULMAR

#3

S/N: B21829-15

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 3/3

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

humidity 33%

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33718	11:00	3.30 PSI	11:05	3.02 PSI	Pass
Chamber # 2 (Main Seam)	33721	12:05	3.26 PSI	12:10	3.08 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
Aug 13/07 # 1	3.03 PSI	11:00	11:00	2.58 PSI	24	23	29.74	29.86	+0.054 -0.058	2.69 PSI	Pass
Re-Test											
Aug 14/07 # 2 (Main Seam)	3.08 PSI	12:10	12:10	2.38 PSI	23	23	29.86	29.63	-0.112	2.27 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *			47.0	± 0.5			24.75	± 0.5		
7.3	± 0.100 *							31.0	± 0.5		

* = IAW QSI 018, rev. A dated 03-05-29

N/A

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour								
	7 day								
Shear	24 hour								
	7 day								

TULMAR

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 1/3

#3

Description: Float Bag Assembly

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

W/O: 4114 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: _____

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) ± 1/8"	156 10 Feb 05	7104-28	1	—	—	1	(TS) 13	Feb 10/05
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up	156 19 Feb. 05	7104-28	6	—	—	6	(TS) 11	Feb 9/05
c) Attach (6) Doublers on above Flanges	8 Inmars	7104-28 Bonding	6	—	—	6	(TS) 11	Feb 8/05
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"	156 10 Feb. 05	7104-28	1	—	—	1	(TS) 11	Feb. 10/05
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape	156 10 Feb 05	7104-28	1	—	—	1	(TS) 13	Feb 11/05
4- a) Baffle Ass'y. with 2" Tape ± 1/8"	110 10 Feb. 05	Bonding	1	—	—	1	(TS) 13	Feb 10/05
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)	110 14 Feb. 05	7104-28	1	—	—	1	(TS) 11	Feb 14/05
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time	12 21 Mar 05	Testing (see sheet 2)	1	—	—	1	(TS) 14	Mar 21/05
7- a) Closure of 1" Main Seam (overlap) ± 1/8"	21 Mar 05	Bonding	1	—	—	1	(TS) 13	April 28/05
b) Attach ID Patch (ref. CAR 04-003)	#110 3 Mar 05	29	1	—	—	1	(TS) 4	May 4/05
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time	12 26 April 05	Testing (see sheet 2)	1	—	—	1	(TS) 4	April 26/05
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8"	110 2/05/05	Bonding	1	—	—	1	(TS) 13	May 4/05
b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag	110 02/05/05	29	1	—	—	1	(TS) 13	May 4/05
c) Attach 5" split patch on each end (x 4)	110 2/05/05		1	—	—	1	(TS) 13	May 4/05

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B _____ & Inspection Stamp beside the S/N		Testing (see sheet 3)						

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase + 0.054 PSI for each 1°C of temperature decrease
+ 0.049 PSI for each 0.1 inch of barometric increase - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										Humidity 12%	
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail			
# 1 (see note 1)	4.36 PSI	Pass	3.00 PSI	2:30	3:15	3.00 PSI	3:15	4:15	3.00 PSI	24°	24°	29.78	29.78	—	3.00 PSI	Pass	
Re-Test																	
# 2 (Main Seam)	4.36 PSI	Pass	3.00 PSI	9:20	10:00	3.00 PSI	10:00	11:00	3.05 PSI	22°	23°	29.62	29.62	-0.054 —	2.99 PSI	Pass	
Re-Test																	

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: Ann Provant

Date: 05.04.18

Observations: OK

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33778	9:45	3.50 PSI	9:50	3.25 PSI	Pass
Chamber # 2 (Main Seam)	33721	10:45	3.38 PSI	10:50	3.14 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test								Leaky 18 %	
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
# 1	3.25 PSI	9:50	9:50	2.60 PSI	24°	21°	30.07	30.34	+0.162 +0.132	2.89 PSI	Pass
Re-Test											
# 2 (Main Seam)	3.14 PSI	10:50	10:50	2.47 PSI	22°	23°	30.34	30.15	-0.054 -0.093	2.38 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *	3.5	Pass	47.0	± 0.5	46 7/8	Pass	24.75	± 0.5	25 1/8	Pass
7.3	± 0.100 *	7.3	Pass					31.0	± 0.5	31.1/4	Pass

* = IAW QSI 018, rev. A dated 03-05-29

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour	Feb 10/05	Pass	May 2/05	Pass				
	7 day	Feb 10/05	Pass	May 2/05	Pass				
Shear	24 hour	Feb 10/05	Pass	May 2/05	Pass				
	7 day	Feb 10/05	Pass	May 2/05	Pass				

Description: Float Bag Assembly S/N: B21829-16

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

S/O: WIO: 20153 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date:


S/F order: 4/1/4

CSM

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) $\pm 1/8"$ b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up c) Attach (6) Doublers on above Flanges		Bonding						
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) $\pm 1/8"$								
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape								
4- a) Baffle Ass'y. with 2" Tape $\pm 1/8"$		Bonding						
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)								
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time		Testing (see sheet 2)						
7- a) Closure of 1" Main Seam (overlap) $\pm 1/8"$ b) Attach ID Patch (ref. CAR 04-003)		Bonding						
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time								
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered $\pm 1/8"$ b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag c) Attach 5" split patch on each end (x 4)		Bonding						

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: <u>B 21829-16</u> & Inspection Stamp beside the S/N	12	Testing (see sheet 3)	1	—	—	1		Aug 14/07

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase + 0.054 PSI for each 1°C of temperature decrease
+ 0.049 PSI for each 0.1 inch of barometric increase - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test								
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail
# 1 (see note 1)	4.36 PSI		3.00 PSI	10:50	11:35	3.00 PSI	11:35	12:35	3.00 PSI	25 25	29.77 29.77	—	3.00 PSI	Pass
Re-Test														
# 2 (Main Seam)	4.36 PSI		3.00 PSI	8:30	9:15	3.00 PSI	9:20	10:20	3.00 PSI	23 23	29.75 29.75	—	3.00 PSI	Pass
Re-Test														

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: N/A Date: N/A

Observations: _____

TULMAR

S/F4114

S/o: 20153

#4

S/N: B21829-16

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 3/3

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Humy 33%

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33724	11:05	3.26 PSI	11:10	3.06 PSI	Pass
Chamber # 2 (Main Seam)	33715	12:10	3.42 PSI	12:15	3.00 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
Aug 13/07 # 1	3.06 PSI	11:10	11:10	2.44 PSI	24	23	29.74	29.86	$\frac{+0.054}{-0.058}$	2.59 PSI	Pass
Re-Test											
Aug 14/07 # 2 (Main Seam)	3.00 PSI	12:15	12:15	2.26 PSI	23	23	29.86	29.63	$\frac{-0.712}{-0.712}$	2.15 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *			47.0	± 0.5			24.75	± 0.5		
7.3	± 0.100 *							31.0	± 0.5		

* = IAW QSI 018, rev. A dated 03-05-29 *n/a*

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour								
	7 day				<i>n/a</i>				
Shear	24 hour								
	7 day								

#4

Description: Float Bag Assembly

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

W/O: 4114 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: Feb/05

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. #	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) ± 1/8"	117 11 Feb 05	7104-28	1	-	-	1	11	Feb 11/05
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up	117 8 Jan 05	Batch 7104-28	6	-	-	6	11	Feb 9/05
c) Attach (6) Doublers on above Flanges		Bonding	6	-	-	6	11	Feb 9/05
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"	117 11 Feb 05	7104-28	1	-	-	1	11	Feb 11/05
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape	117 11 Feb 05	7104-28	1	-	-	1	11	Feb 14/05
4- a) Baffle Ass'y. with 2" Tape ± 1/8"	110 11 Feb 05	Bonding	1	-	-	1	11	Feb 11/05
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)	117 Feb 05 110	7104-28	1	-	-	1	11	Feb 17/05
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time	12 21 Mar 05	Testing (see sheet 2)	1	-	-	1	11	Mar 21/05
7- a) Closure of 1" Main Seam (overlap) ± 1/8"	110 21 Mar 05	7104	1	-	-	1	6	May 3/05
b) Attach ID Patch (ref. CAR 04-003)	110 21 Mar 05	Bonding	1	-	-	1	6	May 9/05
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time	12 May 3/05	Testing (see sheet 2)	1	-	-	1	4	May 3/05
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8"	110 5/5/05	7104	1	-	-	1	9	May 9/05
b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag	110 5/05/05	Bonding	1	-	-	1	9	
c) Attach 5" split patch on each end (x 4)	110 5/05/05	29	1	-	-	1	9	

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B _____ - _____ & Inspection Stamp beside the S/N		Testing (see sheet 3)						

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase + 0.054 PSI for each 1°C of temperature decrease
+ 0.049 PSI for each 0.1 inch of barometric increase - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										Final Read'g	Pass / Fail
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.			
# 1 (see note 1)	4.36 PSI	Pass	3.00 PSI	1:15	2:15	3.00 PSI	2:15	3:15	3.00 PSI	24°	24°	29.79	29.79	<div><div></div><div></div></div>	3.00 PSI	Pass	
Re-Test																	
# 2 (Main Seam)	4.36 PSI	Pass	3.00 PSI	9:50	10:35	3.00 PSI	10:35	13:35	3.00 PSI	23°	23	29.77	29.78	<div><div></div><div>0.004</div></div>	3.00 PSI	Pass	
Re-Test																	

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: _____

Date: 05-04-10

Observations: OK

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2). The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tubes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33724	2:55	3.29 PSI	3:00	3.02 PSI	Pass
Chamber # 2 (Main Seam)	33715	4:05	3.47 PSI	4:10	3.06 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
# 1	3.02 PSI	3:00	3:00	2.61 PSI	25°	25	29.83	29.64	<div><div></div><div>-0.093</div></div>	2.51 PSI	Pass
Re-Test											
# 2 (Main Seam)	3.06 PSI	4:10	4:10	2.27 PSI	25°	25°	29.64	29.65	<div><div></div><div>+0.004</div></div>	2.28 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *	3.5	Pass	47.0	± 0.5	46.5/8	Pass	24.75	± 0.5	25.1/8	Pass
7.3	± 0.100 *	7.3	Pass					31.0	± 0.5	31.5	Pass

* = IAW QSI 018, rev. A dated 03-05-29

4

Submission of Adhesive Testing:

		Subm.Date / am/pm	Pass/Fail	Subm.Date / am/pm	Pass/Fail	Subm.Date / am/pm	Pass/Fail	Subm.Date / am/pm	Pass/Fail
Peel	24 hour	Feb 11/05	Pass	Feb 17/05	Pass	May 5/05	Pass		
	7 day	Feb 11/05	Pass	Feb 17/05	Pass	May 5/05	Pass		
Shear	24 hour	Feb 11/05	Pass	Feb 17/05	Pass	May 5/05	Pass		
	7 day	Feb 11/05	Pass	Feb 17/05	Pass	May 5/05	Pass		

Description: Float Bag Assembly

S/N: B 2 / 829 - 17

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

S/O: 20153 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date:


S/E Order: 4114

C SM

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) ± 1/8"		Bonding						
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up								
c) Attach (6) Doublers on above Flanges								
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"		Bonding						
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape								
4- a) Baffle Ass'y. with 2" Tape ± 1/8"								
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)		Testing (see sheet 2)						
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time								
7- a) Closure of 1" Main Seam (overlap) ± 1/8"								
b) Attach ID Patch (ref. CAR 04-003)		Bonding						
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time								
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8"								
b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag		Bonding						
c) Attach 5" split patch on each end (x 4)								

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: <u>B 21829-17</u> & Inspection Stamp beside the S/N	12	Testing (see sheet 3)	1	-	-	1		Aug 16 2007

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase

+ 0.054 PSI for each 1°C of temperature decrease

+ 0.049 PSI for each 0.1 inch of barometric increase

- 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail		
# 1 (see note 1)	4.36 PSI		3.00 PSI	10:50	11:35	3.00 PSI	11:35	12:35	3.00 PSI	25	25	29.77	29.77	-	3.00 PSI	Pass
Re-Test																
# 2 (Main Seam)	4.36 PSI		3.00 PSI	8:30	9:15	3.00 PSI	9:20	10:20	3.00 PSI	23	23	29.75	29.75	-	3.00 PSI	Pass
Re-Test																

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: w/cw Date: N/A

Observations: _____

SF4114

S/O: 20153

TULMAR #5

S/N: B21829-17

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 3/3

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening			Closing		Pass / Fail
		Time ON	Pressure		Time	Close	
Chamber # 1	33720	11:10	3.22 PSI		11:15	3.06 PSI	Pass
Chamber # 2 (Main Seam)	33728	12:10	3.28 PSI		12:15	3.08 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
<i>Aug 13/07</i> # 1	306 PSI	11:15	11:15	2.60 PSI	24	23	29.74	29.86	$\frac{+0.054}{+0.058}$	2.71 PSI	Pass
Re-Test											
<i>Aug 14/07</i> (Main Seam)	3.08 PSI	12:15	12:15	2.38 PSI	23	23	29.84	29.63	$\frac{-}{0.112}$	2.27 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *			47.0	± 0.5			24.75	± 0.5		
7.3	± 0.100 *							31.0	± 0.5		

* = IAW QSI 018, rev. A dated 03-05-29

N/A

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour								
	7 day								
Shear	24 hour								
	7 day								

#5

Description: Float Bag Assembly

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

W/O: 4114 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: Feb/05

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) ± 1/8"	156 14/20/05	7104-28	1	—	—	1	9	Feb. 14/05
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up	117 8 June 05	Batch 7104-28 Bonding	6	—	—	6	11	Feb 9/05
c) Attach (6) Doublers on above Flanges			6	—	—	6	11	Feb 9/05
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"	156 14/20/05	7104-28	1	—	—	1	9	Feb 14/05
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape	156 14/20/05	7104-28	1	—	—	1	9	Feb 14/05
4- a) Baffle Ass'y. with 2" Tape ± 1/8"	#110 14 Feb. 05	7104-28 Bonding	1	—	—	1	11	Feb 14/05
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)	#110 14 Feb. 05		1	—	—	1	11	Feb 17/05
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time	12 21 Mar 05	Testing (see sheet 2)	1	—	—	1	4	Mar 21/05
7- a) Closure of 1" Main Seam (overlap) ± 1/8"	110 21/04/05	7104 Bonding	1	—	—	1	9	May 3/05
b) Attach ID Patch (ref. CAR 04-003)	110 6/5/05		1	—	—	1	9	May 9/05
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time	12 May 3/2005	Testing (see sheet 2)	1	—	—	1	4	May 3/05
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8"	4 May 05 #110	7104- Bonding	1	—	—	1	9	May 9/05
b) Attach Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag	#110 5/5/05		1	—	—	1	9	May 9/05
c) Attach 5" split patch on each end (x 4)	#110 5/05/05		1	—	—	1	9	May 9/05

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B _____ - _____ & Inspection Stamp beside the S/N		Testing (see sheet 3)						

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase + 0.054 PSI for each 1°C of temperature decrease
+ 0.049 PSI for each 0.1 inch of barometric increase - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										Final Read'g	Pass / Fail
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.					
# 1 (see note 1)	4.36 PSI	Pass	3.00 PSI	11:50	2:35	3.00 PSI	2:35	3:35	3.00 PSI	24	24	29.78	29.78	-	3.00 PSI	Pass	
Re-Test																	
# 2 (Main Seam)	4.36 PSI	Pass	3.00 PSI	11:00	11:45	3.00 PSI	11:45	12:45	3.00 PSI	23	23	29.78	29.78	-	3.00 PSI	Pass	
Re-Test																	

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: _____

Date: 05.04.18

Observations: _____

OK

Final Test: Leakage / Relief Valves. The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33720	2:50	3.25 PSI	2:55	3.06 PSI	Pass
Chamber # 2 (Main Seam)	33728	4:20	3.25 PSI	4:25	3.08 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
# 1	3.06 PSI	2:55	2:55	2.66 PSI	25°	25	29.89	29.64	-0.093	2.56 PSI	Pass
Re-Test											
# 2 (Main Seam)	3.08 PSI	4:25	4:25	2.36 PSI	25°	25°	29.64	29.65	+0.004	2.37 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *	3.5	Pass	47.0	± 0.5	47.0	Pass	24.75	± 0.5	25 1/4	Pass
7.3	± 0.100 *	7.3	Pass					31.0	± 0.5	31.5	Pass

* = IAW QSI 018, rev. A dated 03-05-29

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour	Feb 15/05	Pass	May 4/05	Pass	May 6/05	Pass		
	7 day	Feb 15/05	Pass	May 4/05	Pass	May 6/05	Pass		
Shear	24 hour	Feb 15/05	Pass	May 4/05	Pass	May 6/05	Pass		
	7 day	Feb 15/05	Pass	May 4/05	Pass	May 6/05	Pass		

Description: Float Bag Assembly S/N: B21829-18


-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

S/O: 20153 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date:
 S/F order: 4/1/4 CSM.

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) $\pm 1/8$ " b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up c) Attach (6) Doublers on above Flanges		Bonding						
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) $\pm 1/8$ "								
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape								
4- a) Baffle Ass'y. with 2" Tape $\pm 1/8$ "		Bonding						
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)								
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time		Testing (see sheet 2)						
7- a) Closure of 1" Main Seam (overlap) $\pm 1/8$ " b) Attach ID Patch (ref. CAR 04-003)		Bonding						
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time								
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered $\pm 1/8$ " b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag c) Attach 5" split patch on each end (x 4)		Bonding						

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B <u>21829-18</u> & Inspection Stamp beside the S/N	12	Testing (see sheet 3)	1	-	-	1		Aug 16 2007
Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).								

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase + 0.054 PSI for each 1°C of temperature decrease
+ 0.049 PSI for each 0.1 inch of barometric increase - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail		
# 1 (see note 1)	4.36 PSI		3.00 PSI	10:50	11:35	3.00 PSI	11:35	12:35	3.00 PSI	25	25	29.77	29.77	-	3.00 PSI	Pass
Re-Test																
# 2 (Main Seam)	4.36 PSI		3.00 PSI	8:25	9:10	3.00 PSI	9:20	10:20	3.00 PSI	23	23	29.75	29.75	-	3.00 PSI	Pass
Re-Test																

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: N/cu Date: N/A

Observations: _____

CULMAR Original

S/F 4114

S/O 20153

#6

S/N: B21829-18

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 3/3

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing			Pass / Fail
		Time ON	Pressure	Time	Close		
Chamber # 1	33727	11:15	3.47 PSI	11:20	3.26 PSI		Pass
Chamber # 2 (Main Seam)	33725	12:10	3.48 PSI	12:15	3.31 PSI		Pass

33 hours

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
Aug/3/07 # 1	3.26 PSI	11:20	11:20	2.75 PSI	24	23	29.74	29.86	+0.054 +0.058	2.86 PSI	Pass
Re-Test											
Aug/4/07 (Main Seam)	3.31 PSI	12:15	12:15	2.47 PSI	23	23	29.86	29.63	- 0.112	2.36 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *			47.0	± 0.5			24.75	± 0.5		
7.3	± 0.100 *							31.0	± 0.5		

* = IAW QSI 018, rev. A dated 03-05-29

n/a

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour								
	7 day								
Shear	24 hour								
	7 day								

n/a

Description: Float Bag Assembly

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

W/O: 4114 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: Feb/05

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) ± 1/8"	130 14 Feb 05	Batch 7104-28	1	—	—	1	(TS) 11	Feb 14/05
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up	117 8 February 05	Batch 7104-28	6	—	—	6	(TS) 11	Feb 9/05
c) Attach (6) Doublers on above Flanges		Bonding	6	—	—	6	(TS) 11	Feb 9/05
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"	156 14 Feb 05	7104-28	1	—	—	1	(TS) 11	Feb 14/05
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape	150 15 Feb 05	7104-28	1	—	—	1	(TS) 11	Feb 14/05
4- a) Baffle Ass'y. with 2" Tape ± 1/8"	110 14 Feb 05	Bonding	1	—	—	1	(TS) 11	Feb 14/05
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)	110 18 Feb 05	7104-28	1	—	—	1	(TS) 11	Feb 18/05
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time	12 24 March 05	Testing (see sheet 2)	1	—	—	1	(TS) 11	March 24/05
7- a) Closure of 1" Main Seam (overlap) ± 1/8"	110 21/04/05	7104 Bonding	1	—	—	1	(TS) 11	April 28/05
b) Attach ID Patch (ref. CAR 04-003)	110 6/05/05	29	1	—	—	1	(TS) 11	May 9/05
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time	12 May 4 2005	Testing (see sheet 2)	1	—	—	1	(TS) 11	May 4/05
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8"	110 5/5/05	7104 Bonding	1	—	—	1	(TS) 11	May 9/05
b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag	110 5/5/05	29	1	—	—	1	(TS) 11	May 9/05
c) Attach 5" split patch on each end (x 4)	110 5/5/05		1	—	—	1	(TS) 11	May 9/05

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B _____ - _____ & Inspection Stamp beside the S/N		Testing (see sheet 3)						

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase
+ 0.049 PSI for each 0.1 inch of barometric increase

+ 0.054 PSI for each 1°C of temperature decrease

- 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
# 1 (see note 1)	4.36 PSI	Pass	3.00 PSI	8:15	9:00	3.00 PSI	9:00	10:00	3.00 PSI	22	22	29.81	29.81	-	3.00 PSI	Pass
Re-Test																
# 2 (Main Seam)	4.36 PSI	Pass	3.00 PSI	8:50	9:30	3.00 PSI	9:35	10:35	3.00 PSI	24°	24°	30.07	30.10	0.014	3.01 PSI	Pass
Re-Test																

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature:

Chris Brown

Date: 05.04.18

Observations: OK

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3- 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test

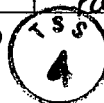
Chamber #	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33727	3:20	3.40 PSI	3:25	3.07 PSI	Pass
Chamber # 2 (Main Seam)	33725	4:10	3.50 PSI	4:20	3.24 PSI	Pass

24 Hour Leakage Test

Chambers	Design (closing) Pressure as per above	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail
# 1	3.07 PSI	3:25	3:25	2.70 PSI	25' 25'	29.83 29.64	-0.0931	2.60 PSI	Pass
Re-Test									
# 2 (Main Seam)	3.24 PSI	4:20	4:20	2.47 PSI	25' 25'	29.64 29.65	-0.004	2.48 PSI	Pass
Re-Test									

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *	3.5	Pass	47.0	± 0.5	46 5/8	Pass	24.75	± 0.5	25 3/16	Pass
7.3	± 0.100 *	7.3	Pass					31.0	± 0.5	31 3/8	Pass

* = IAW QSI 018, rev. A dated 03-05-29



Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour	Feb 15/05	Pass	Feb 18/05	Pass	May 5/05	Pass		
	7 day	Feb 15/05	Pass	Feb 18/05	Pass	May 5/05	Pass		
Shear	24 hour	Feb 15/05	Pass	Feb 18/05	Pass	May 5/05	Pass		
	7 day	Feb 15/05	Pass	Feb 18/05	Pass	May 5/05	Pass		

TULMAR #6**Product Inspection Form # 193-8927(Tube & Final)**

Rev. D Sheet 1/3


Description: Float Bag Assembly S/N: B21829-19**-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001**

S/O: W/O: 20153 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: S/F order: 3664 C CM

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) $\pm 1/8"$ b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up c) Attach (6) Doublers on above Flanges		Bonding						
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) $\pm 1/8"$								
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape								
4- a) Baffle Ass'y. with 2" Tape $\pm 1/8"$		Bonding						
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)								
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time		Testing (see sheet 2)						
7- a) Closure of 1" Main Seam (overlap) $\pm 1/8"$ b) Attach ID Patch (ref. CAR 04-003)		Bonding						
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time		Testing (see sheet 2)						
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered $\pm 1/8"$ b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag c) Attach 5" split patch on each end (x 4)		Bonding						

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B <u>21829-19</u> & Inspection Stamp beside the S/N	12	Testing (see sheet 3)	1	-	-	1		Aug 16 2007
Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).								

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase

+ 0.054 PSI for each 1°C of temperature decrease

+ 0.049 PSI for each 0.1 inch of barometric increase

- 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										
		Pass / Fail	Design Pressure (Aug 12/07)	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail		
# 1 (see note 1)	4.36 PSI		3.00 PSI	10:45	11:30	3.00 PSI	11:30	12:30	3.00 PSI	25	25	29.77	29.77	-	3.00 PSI	Pass
Re-Test																
# 2 (Main Seam)	4.36 PSI		3.00 PSI	8:30	9:15	3.00 PSI	9:20	10:20	3.00 PSI	23	23	29.75	29.75	-	3.00 PSI	Pass
Re-Test																

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: _____

n/a

Date: _____

Observations: _____

Original S/F 3664 S/O 20153

TULMAR #6

S/N B21829-19

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 3/3

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2). The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test		Opening		Closing		Pass / Fail
Chamber #	PRV Serial Numbers	Time ON	Pressure	Time	Close	
Chamber # 1	33204	10:40	3.24 PSI	10:45	3.05 PSI	Pass
Chamber # 2 (Main Seam)	33178	12:15	3.16 PSI	12:20	3.00 PSI	Pass

hung. 33%

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test							
		Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail
Aug 13/07 #1	3.05 PSI	10:45	10:45	2.48 PSI	24 23	29.74 29.86	0.054	2.59 PSI	Pass
Re-Test							+0.058		
Aug 14/07 #2 (Main Seam)	3.00 PSI	12:20	12:20	1.90 PSI	23 23	29.86 29.63	-	1.79 PSI	Pass
Re-Test							0.112		

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *			47.0	± 0.5			24.75	± 0.5		
7.3	± 0.100 *							31.0	± 0.5		

* = IAW QSI 018, rev. A dated 03-05-29 N/A

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour								
	7 day								
Shear	24 hour				N/A				
	7 day								

EMAR #6

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 3/3

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 – 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening			Closing		Pass / Fail
		Time ON	Pressure		Time	Close	
Chamber # 1	33204	11:40	3.50 PSI		11:45	3.10 PSI	Pass
Chamber # 2 (Main Seam)	33178	12:00	3.27 PSI		12:05	3.07 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass Fail
#2	3.10 PSI	11:45	11:45	2.95 PSI	23°	23°	29.74	29.94	+0.098	2.09 PSI	Pass
Re-Test											
#1 (Main Seam)	3.07 PSI	12:05	12:05	2.58 PSI	23°	23°	29.93	29.41	-0.254	2.32 PSI	Pass
Re-Test											

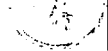
Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *	3.5	Pass	47.0	± 0.5	47	Pass	24.75	± 0.5	25 1/4	Pass
7.3	± 0.100 *	7.5/16	Pass					31.0	± 0.5	31 1/2	Pass

* = IAW QSI 018, rev. A dated 03-05-29

4

Submission of Adhesive Testing:

		Subm. Date / am/pm	Pass/Fail	Subm. Date / am/pm	Pass/Fail	Subm. Date / am/pm	Pass/Fail	Subm. Date / am/pm	Pass/Fail
Peel	24 hour	Dec 6/04	Pass	Dec 6/04	Pass	Dec 20/04	Pass		
	7 day	Dec 6/04	Pass	Dec 6/04	Pass	Dec 20/04	Pass		
Shear	24 hour	Dec 6/04	Pass	Dec 6/04	Pass	Dec 20/04	Pass		
	7 day	Dec 6/04	Pass	Dec 6/04	Pass	Dec 20/04	Pass		

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B _____ & Inspection Stamp beside the S/N	12 Dec 23/04	Testing (see sheet 3)	1	—	—	1		Dec 23/04

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DARE (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi , re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase

+ 0.054 PSI for each 1°C of temperature decrease

+ 0.049 PSI for each 0.1 inch of barometric increase

- 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test								
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail
# 1 (see note 1)	4.36 PSI	Pass	3.00 PSI	10:35	11:20	3.00 PSI	11:20	12:20	2.98 PSI	23 ^e 23 ^c	29.72 29.70	— - 0.009	2.97 PSI	Pass
Re-Test														
Dec 12 2004 (Main Seam)	4.36 PSI	Pass	3.00 PSI	11:30	12:15	3.00 PSI	12:15	1:15	2.96 PSI	23 23	29.81 29.79	— - 0.009	2.95 PSI	Pass
Re-Test														

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: Chris Pinares

Date: 09.12.10

Observations: One area on inside seam to be pressed down / glued. otherwise OK. LABEL NOW 13" WIDE TO COVER SURFACE

BLEMISH ID 09.12.10

TULMAR**Product Inspection Form # 193-8927(Tube & Final)**

Rev. D Sheet 1 of 3

#6

Description: Float Bag Assembly**-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001**W/O: 3664 TSS P/N: 8927 Qty.: 12 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: Dec 2004

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			

*** Note:** PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) \pm 1/8"	37 6 dec .04	7104-25	1	-	-	1	2	Dec. 6/04
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up	37 2 dec .04		6	-	-	6	11	Dec 2/04
c) Attach (6) Doublers on above Flanges	37 2 dec .04		6	-	-	6	11	Dec 2/04
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) \pm 1/8"	37 6 dec .04	7104-25	1	-	-	1	9	Dec. 6/04
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape	37 6 dec .04		1	-	-	1	9	Dec. 6/04
4- a) Baffle Ass'y. with 2" Tape \pm 1/8"	117 7 dec .04		1	-	-	1	13	Dec 6/04
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)	117 7 dec .04	Bonding	1	-	-	1	13	Dec 7/04
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time	12 DEC 10/2004	Testing (see sheet 2)	1	-	-	1	14	Dec. 10/04
7- a) Closure of 1" Main Seam (overlap) \pm 1/8"	37 13 dec .04	7104-26	1	-	-	1	14	Dec 13/04
b) Attach ID Patch (ref. CAR 04-003)	117 21 dec .04		1	-	-	1	14	Jan. 10/04
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time	12 16 dec 2004	Testing (see sheet 2)	1	-	-	1	15	Dec 16/04
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered \pm 1/8"	117 20 dec .04	7104-26	1	-	-	1	15	Dec 21/04
b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag	117 20 dec .04		1	-	-	1	15	Dec 21/04
c) Attach 5" split patch on each end (x 4)	117 20 dec .04		1	-	-	1	15	Dec 21/04

Description: Float Bag Assembly S/N: B21829-20

-Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

S/O: 20153 TSS P/N: 8927 Qty.: 1 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date:
 S/F order: 3664 C SM

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			


* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint)± 1/8" b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up c) Attach (6) Doublers on above Flanges		Bonding						
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"								
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape								
4- a) Baffle Ass'y. with 2" Tape ± 1/8"		Bonding						
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)								
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time		Testing (see sheet 2)						
7- a) Closure of 1" Main Seam (overlap) ± 1/8" b) Attach ID Patch (ref. CAR 04-003)		Bonding						
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time								
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8" b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag c) Attach 5" split patch on each end (x 4)		Bonding						

ULMAR # 10 3664

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 2/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B 21829-20 & Inspection Stamp beside the S/N	12	Testing (see sheet 3)	1	-	-	1		Aug 16 2007
Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16 " high lettering and black ink: serial number (7 digits), provided by DART (refer to W/O). * Verify the integrity of the Valves (Threads/gaskets).								

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi , re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.94 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase + 0.054 PSI for each 1°C of temperature decrease
+ 0.049 PSI for each 0.1 inch of barometric increase - 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test										
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail		
# 1 (see note 1)	4.36 PSI		aug 10/07 3.00 PSI	10:50	11:35	3.00 PSI	11:35	12:35	3.00 PSI	25	25	29.77	29.77	-	3.00 PSI	fail
Re-Test																
# 2 (Main Seam)	4.36 PSI		aug 13/07 3.00 PSI	8:30	9:15	3.00 PSI	9:20	10:20	3.00 PSI	23	23	29.75	29.75	-	3.00 PSI	fail
Re-Test																

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: N/A Date: N/A

Observations: _____

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 - 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Hummy 33%

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Closing		Pass / Fail
		Time ON	Pressure	Time	Close	
Chamber # 1	33003	10:30	3.45 PSI	10:35	3.13 PSI	Pass
Chamber # 2 (Main Seam)	33181	12:10	3.26 PSI	12:15	3.01 PSI	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	Pass / Fail
aug 13/07 # 1	3.13 PSI	10:35	10:35	2.53 PSI	24"	23"	29.74	29.86	+0.054 6.058	2.64 PSI	Pass
Re-Test											
aug 14/07 2 (Main Seam)	3.01 PSI	12:15	12:15	2.25 PSI	03	23	29.86	29.63	- 0.112	2.14 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *			47.0	± 0.5			24.75	± 0.5		
7.3	± 0.100 *							31.0	± 0.5		

* = IAW QSI 018, rev. A dated 03-05-29

n/a

Submission of Adhesive Testing:

		Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail	Subm.Date / am-pm	Pass/Fail
Peel	24 hour								
	7 day								
Shear	24 hour								
	7 day								

n/a

FULMAR

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 1-3

#10

Description: Float Bag Assembly

Items are Manufactured IAW Process Control Specification No. 001, 002, 003, 004, 005, 006, and are to be 100% inspected I.A.W. P.I.P. 001

W/O: 3664 TSS P/N: 8927 Qty.: 12 Customer P/N: D3218-041 Dwg. No.: D3218 Rev.: A Date: _____

Cutting IAW PCS 003		Marking IAW PCS 004		Bonding IAW PCS 002		Silkscreen	
Operator No.	Date	Operator No.	Date	Operator No.	Date	Operator No.	Date
				(Documented below)			


* Note: PCS 006, there shall be a total of 2 samples submitted for the Testing of the Adhesive (Peel and Shear Test), at start and end of every production day, record on sheet 3/3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
1- a) Attach Panel A (uneven edge) to larger edge of Panel B, centered on a 2" inner tape (butt joint) ± 1/8"	37 7dec.04	7104-26	1	—	—	1	(SS 11)	Dec 7/04
b) Attach (6) Valve Flanges on Panel A: 2-Relief, 2-Inlet & 2- Topping Up	#110 2/12/04	Bonding	6	—	—	6	(SS 11)	> Dec 6/04
c) Attach (6) Doublers on above Flanges			6	—	—	6	(SS 11)	
2- a) Attach Panel C to Straight edge of Panel A, centered on a 2" inner Tape (butt joint) ± 1/8"	37 7dec.04	7104-26	1	—	—	1	(SS 11)	Dec 7/04
3- a) Att. Panel D to Panel B (shorter edge) with 2" inner Tape	37 7dec.04	7104-26	1	—	—	1	(SS 11)	Dec 7/04
4- a) Baffle Ass'y. with 2" Tape ± 1/8"	117 7dec.04	Bonding	1	—	—	1	(SS 11)	Dec 7/04
5- a) Attach Baffle Ass'y. to Bag (in 3 stages, minimum)	117 8dec.04		1	—	—	1	(SS 11)	Dec 8/04
6- a) Perform Baffle Test on Chamber # 1 after a 3 day Cure Time	12 Jan 6/05	Testing (see sheet 2)	1	—	—	1	(SS 11)	Jan 6/05
7- a) Closure of 1" Main Seam (overlap) ± 1/8"	37 Jan 13/05	7104-28	1	—	—	1	(SS 11)	Jan 13/05
b) Attach ID Patch (ref. CAR 04-003)	37 3 Feb 1/05	Bonding 7104-28	1	—	—	1	(SS 11)	Feb 4/05
8- a) Perform Baffle Test on Chamber # 2 after a 3 day Cure Time	Jan 18/05	Testing (see sheet 2)	1	—	—	1	(SS 11)	Jan 18/05
9- a) Attach 1" wide Finishing Tape on all Butt Joints & Main Seam, Centered ± 1/8"	2 Feb 1/05	7104-28	1	—	—	1	(SS 11)	Feb 4/05
b) Att. Inspected Girt Ass'y. (Form 193-8927, Girt) to Bag	37 3 Feb 1/05	Bonding	1	—	—	1	(SS 11)	" " "
c) Attach 5" split patch on each end (x 4)	37 3 Feb 1/05	7104-28	1	—	—	1	(SS 11)	Feb 4/05

LMAR # 10

Product Inspection Form # 193-8927(Tube & Final)

Rev. D Sheet 2 of 3

Stages & Descriptions	Operator No. + Date	Operation	Accept. Qty.	Reject. Qty.	NCR	Total Accept.	Insp. Stamp	Date
10- a) Final Test b) Inspector to Stamp on ID Patch: Serial No.: B _____ & Inspection Stamp beside the S/N	12 Feb 9/05	Testing (see sheet 3)	1	—	—	1		Feb 9/2005

Upon completion of the (final) leakage test, the ID Patch shall be stamped with 5/16" high lettering and black ink; serial number (7 digits), provided by DART (refer to W30). Verify the integrity of the Valves (Threads/gaskets).

Test Conditions – All tests shall be performed in the following conditions:

a) Atmospheric pressure between 28 to 32 inches of mercury (94.8 kPa to 108.4 kPa) b) Temperature shall be 20°C ± 5°C c) Relative humidity shall be 80 % or less

Baffle Test:

Over Pressure: Using socket tool and torque wrench s/n 0801300327, tight all (3) Valves to 40 inch pound, the JIC adaptor s/n 44537 between 15 to 20 foot pounds. Block the Relief valve with flagged pin. Inflate Chamber to 4.36 PSI (30 kPa) with clean dry air source. Using leak detector or non detergent soap, check all the valves and seams to detect leakage. Leakage shall be cause for rejection (soap during testing period). Fuzz is not considered a failure. After 5 minutes, there shall be no evidence of distortion or damage to the seams.

Inflation Test: Lower Chamber to 3.00 psi, re-adjust after 45 minutes. After 1 hour, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period. The corrected pressure reading shall not be less than 2.9 PSI in order for the Test to be acceptable.

- 0.054 PSI for each 1°C of temperature increase
+ 0.049 PSI for each 0.1 inch of barometric increase

+ 0.054 PSI for each 1°C of temperature decrease

- 0.049 PSI for each 0.1 inch of barometric decrease

Chambers	Pressure	5 Min. Over P. & Soap Test	45 Minute Stabilizing Period			1 Hour Test								
		Pass / Fail	Design Pressure	Time On	Time Off	Design Pressure	Time On	Time Off	Read'g	Temp. Start/End	Barom. Start/End	Adjust.	Final Read'g	Pass / Fail
# 1 (see note 1)	4.36 PSI	Pass	3.00 PSI	12:15	1:00	3.00 PSI	1:00	2:00	2.99 PSI	22° 22°	29.72 29.63	-0.044	2.95 PSI	Pass
Re-Test														
# 2 (Main Seam)	4.36 PSI	Pass	3.00 PSI	2:15	3:05	3.00 PSI	3:05	4:05	2.97 PSI	19° 19°	30.51 30.53	+0.009	2.98 PSI	Pass
Re-Test														

Note 1: Chamber # 1 requires Dart Aerospace Approval Signature: Chris Pomeroy

Date: 05.01.12

Observations: OK. Has 1" diam patch on baffle, OK.

Final Test: Leakage / Relief Valves: The chambers are to be tested separately (one at a time). Through the Topping Up Valve, inflate chamber to approximately 2.00 PSI, soap the (3) valves to detect leakage. Then slowly inflate chamber until pressure relief valve vents. Use leak detector or non detergent soap to detect the opening and the closing. A hissing sound may also denote that the valve has started to open. Record the opening/closing time and pressure. The opening pressure shall be between 3.3 – 3.5 PSI and the closing pressure shall not be less than 3.00 PSI, in order for the test to be acceptable. After 24 hours, take the pressure reading of the chamber. Compensate the pressure reading by allowing for any temperature and barometric pressure changes during the test period (see sheet 2).

The corrected pressure reading shall not be less than 1.60 PSI in order for the Test to be acceptable.

Upon completion of the Final Test, inflate both chambers equally to approx. 2.00 PSI and perform Dimensional Verification below. Perform additional inspection of the tapes and girt assembly.

Pressure Relief Valve Test	PRV Serial Numbers	Opening		Pressure	PSI	Closing		Pass / Fail
		Time ON				Time	Close	
Chamber # 1	33203	9:55		3.45	PSI	10:00	3.01	Pass
Chamber # 2 (Main Seam)	33181	10:40		3.50	PSI	10:45	3.0	Pass

Chambers	Design (closing) Pressure as per above	24 Hour Leakage Test									Pass / Fail
		Time On	Time Off	Read'g	Temp. Start/End		Barom. Start/End		Adjust.	Final Read'g	
Feb 1/05											
# 1	3.01 PSI	10:00	10:00	2.80 PSI	22°	22°	30.12	29.82	-0.147	2.65 PSI	Pass
Re-Test											
Feb 8/05											
# 2 (Main Seam)	3.0 PSI	10:45	10:45	2.19 PSI	22°	22°	29.80	29.85	+0.024	2.21 PSI	Pass
Re-Test											

Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail	Dim.	Tol.	Actual Dim.	Pass/Fail
3.5	± 0.100 *	3.4	Pass	47.0	± 0.5	46.505M.	Pass	24.75	± 0.5	25 3/8	Pass
7.3	± 0.100 *	7.4	Pass					31.0	± 0.5	31 1/8	Pass

* = IAW QSI 018, rev. A dated 03-05-29

Submission of Adhesive Testing:

		Subm. Date / am-pm	Pass/Fail	Subm. Date / am-pm	Pass/Fail	Subm. Date / am-pm	Pass/Fail	Subm. Date / am-pm	Pass/Fail
Peel	24 hour	Dec 7/04	Pass	Dec 8/04	Pass	Jan 13/05	Pass		
	7 day	Dec 7/04	Pass	Dec 8/04	Pass	Jan 13/05	Pass		
Shear	24 hour	Dec 7/04	Pass	Dec 8/04	Pass	Jan 13/05	Pass		
	7 day	Dec 7/04	Pass	Dec 8/04	Pass	Jan 13/05	Pass		